

REMARKS/ARGUMENTS

Claims 14, 16, 18-22, 24, and 26-29 are pending in this application. By this Amendment, Applicant cancels Claims 12, 13, 15, 17, 23, and 25 and amends Claims 14, 16, 22, and 24.

Claims 12-14, 18, and 22 were rejected under 35 U.S.C. § 102(b) as being anticipated by Koichi et al. (JP 08-191569). Claims 15, 17, 19-21, 23, and 25-29 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Koichi et al. Claims 16 and 24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Koichi et al. in view of Takahashi (JP 2003-018842). Claims 12, 13, 15, 17, 23, and 25 have been canceled. Applicant respectfully traverses the rejections of Claims 14, 16, 18-22, 24, and 26-29.

Claim 14 has been amended to recite:

A power-supply unit comprising:  
a main power-supply circuit and a secondary power-supply circuit,  
both connected to an alternating current power supply;  
an input current control circuit provided in the main power-supply  
circuit;  
a circuit current detection element provided in the input current  
control circuit;  
**a first rectifying circuit connected between the alternating  
current power supply and the input current control circuit, the first  
rectifying circuit provided in the main power-supply circuit;**  
**a second rectifying circuit connected to the alternating current  
power supply, the second rectifying circuit provided in the  
secondary power-supply circuit; and**  
a smoothing circuit connected to an output of the second rectifying  
circuit, the smoothing circuit provided in the secondary power-supply  
circuit; wherein  
a current of a summation of an input current supplied to the main  
power-supply circuit and an input current supplied to the secondary  
power-supply circuit flows in the circuit current detection element; and  
the input current control circuit controls the input current supplied to  
the main power-supply circuit such that harmonic current is suppressed in  
the current flowing in the circuit current detection element. (emphasis  
added)

Applicant's Claim 22 recites features that are similar to the features recited in Applicant's Claim 1, including the above-emphasized feature.

The Examiner alleged that Koichi et al. teaches all of the features recited in Applicant's Claims 14 and 22.

Applicant's Claims 14 and 22 have been amended to recite the features of "a first rectifying circuit connected between the alternating current power supply and the input current control circuit, the first rectifying circuit provided in the main power-supply circuit," "a second rectifying circuit connected to the alternating current power supply, the second rectifying circuit provided in the secondary power-supply circuit," and "a smoothing circuit connected to an output of the secondary rectifying circuit, the smoothing circuit provided in the second power-supply circuit." Support for these features is found in Applicant's originally filed Claims 15 and 23.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of Claims 14 and 22 under 35 U.S.C. § 102(b) as being anticipated by Koichi et al., since neither Claim 15 nor Claim 23 was rejected under 35 U.S.C. § 102(b) as being anticipated by Koichi et al.

With respect to originally filed Claims 15 and 23, the Examiner alleged:

Koichi teaches further comprising: a first rectifying circuit (item 2) connected between the alternating current power supply (1) and the input current control circuit, the first rectifying circuit provided in the main power-supply circuit; a second rectifying circuit connected to the alternating current power supply, the second rectifying circuit (item 18B) provided in the second power-supply circuit; and a smoothing circuit (item 20) connected to the output of the second rectifying circuit, the smoothing circuit provided in the second power-supply circuit. Koichi does [not] cite the first rectifying circuit to be in the main supply. It would have been obvious to one of ordinary skill in the art at the time of the invention to consider the first rectifying circuit of Koichi to be part of the main power supply circuitry as it provides the power input to the main power supply circuit in order to increase modularity of the system.

Applicant respectfully disagrees with the Examiner's interpretation of Koichi et al.

In contrast to the Examiner's allegations, as clearly shown in Fig. 1 of Koichi et al. and disclosed in paragraph [0011] of the English machine translation of Koichi et al.,

at best, Koichi et al. teaches **only a single** rectifying circuit 2 which is connected to the alternating current (AC) supply circuit 1. The single rectifying circuit 2 of Koichi et al. is connected to both of the first and second converters 4A and 4B, which the Examiner alleged correspond to the main power-supply circuit and the secondary power-supply circuit, respectively recited in Applicant's Claims 14 and 22, so as to rectify the alternating current  $V_{in}$  input from the AC supply circuit 1 and change the alternating current  $V_{in}$  into a DC current. The DC current is then supplied from the single rectifying circuit 2 of Koichi et al. to both of the first and second converters 4A and 4B. Koichi et al. fails to teach or suggest any other rectifying circuit which is connected to the AC supply circuit 1, or even that a second rectifying circuit could or should be connected to the AC supply circuit 1.

As clearly shown in Fig. 1 of Koichi et al., element 18B of Koichi et al., which the Examiner alleged corresponds to the second rectifying circuit recited in Applicant's originally filed Claims 15 and 23 and now recited in Applicant's Claims 14 and 22, is not connected to the AC supply circuit 1, and instead is connected to the secondary winding of the transformer 17. Thus, contrary to the Examiner's allegations, element 18B of Koichi et al. clearly cannot be fairly construed as the feature of "a second rectifying circuit connected to the alternating current power supply, the second rectifying circuit provided in the secondary power-supply circuit" as recited in Applicant's Claims 14 and 22.

In addition, as clearly shown in Fig. 1, contrary to the Examiner's allegations, the rectifying circuit 2 is not provided in the converter 4A, which the Examiner alleged corresponds to the main power-supply circuit recited in Applicant's Claims 14 and 22, and instead is provided next to the AC supply circuit 1 with the input control circuit 3 disposed between the rectifying circuit 2 and the converter 4A. Thus, contrary to the Examiner's allegations, no one having ordinary skill in the art would, or could possibly, consider the rectifying circuit 2 of Koichi et al. to be part of the main power supply circuit (converter 4A), and anyone having ordinary skill in the art would clearly recognize that the rectifying circuit 2 of Koichi et al. is **not** provided in the main power supply circuit

(converter 4A of Koichi et al.), and instead, is clearly and specifically provided in a completely different portion of the power supply device of Koichi et al.

Therefore, Koichi et al. certainly fails to teach or suggest the features of “a first rectifying circuit connected between the alternating current power supply and the input current control circuit, the first rectifying circuit provided in the main power-supply circuit” and “a second rectifying circuit connected to the alternating current power supply, the second rectifying circuit provided in the secondary power-supply circuit” as recited in Applicant’s Claims 14 and 22.

The Examiner relied upon Takahashi to allegedly cure deficiencies of Koichi et al. However, Takahashi fails to teach or suggest the features of “a first rectifying circuit connected between the alternating current power supply and the input current control circuit, the first rectifying circuit provided in the main power-supply circuit” and “a second rectifying circuit connected to the alternating current power supply, the second rectifying circuit provided in the secondary power-supply circuit” as recited in Applicant’s Claims 14 and 22. Therefore, Takahashi fails to cure the deficiencies of Koichi et al. described above.

Accordingly, Applicant respectfully submits that Koichi et al. and Takahashi, applied alone or in combination, fail to teach or suggest the unique combination and arrangement of features recited in Applicant’s Claims 14 and 22.

In view of the foregoing amendments and remarks, Applicant respectfully submits that Claims 14 and 22 is allowable. Claims 16, 18-21, 24, and 26-29 depend upon Claims 14 and 22, and are therefore allowable for at least the reasons that Claims 14 and 22 are allowable.

In view of the foregoing amendments and remarks, Applicant respectfully submits that this application is in condition for allowance. Favorable consideration and prompt allowance are solicited.

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The Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1353.

Respectfully submitted,

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